

IN THE CLAIMS:

Please amend the claims as follows:

1 - 8 (Canceled).

9. (Original) An apparatus for removing phosphorus from a wastewater effluent stream comprising:

- (a) a continuous crystallizer tower comprising a fluidized bed of struvite therein and a struvite crystal product collection chamber therebeneath, said crystallizer being formed such that the cross sectional area thereof generally increases from a relatively smaller cross sectional area at the bottom thereof to a relatively larger cross sectional area at the top thereof;
- (b) a dissolver tower comprising a bed of magnesite therein;
- (c) a first pump for pumping a first portion of the wastewater effluent to the bottom of the continuous crystallizer and a second portion of the wastewater effluent to the bottom of the dissolver tower;
- (d) a second pump for pumping magnesium overflow solution from the top of the dissolver tower to the bottom of the continuous crystallizer tower;
- (e) an ammonia source for injecting ammonia into the first portion of the wastewater effluent at the bottom of the continuous crystallizer;
- (f) a carbon dioxide (CO₂) source for injecting carbon dioxide into the second portion of the wastewater effluent at the bottom of the dissolver tower; and

- (g) a drain for capturing the treated wastewater effluent from the top of the continuous crystallizer tower.
- 10. (Original) The apparatus according to claim 9 wherein the crystallizer tower comprises an inverted cone-shaped tower about 60 inches high and about 1.5 inches in diameter at the bottom and 10.0 inches in diameter at the top.
- 11. (Original) The apparatus according to claim 9 wherein the apparatus operates at up to about 600 L/h of total liquid flow therethrough.
- 12. (Original) The apparatus according to claim 9 wherein the crystallizer includes a plug valve at the bottom thereof for selectively operating and purging the continuous crystallizer.
- 13. (Original) The apparatus according to claim 9 wherein the dissolver tower comprises an inverted cone-shaped tower with a cone-shaped plug valve at the bottom thereof.
- 14. (Original) The apparatus according to claim 9 wherein the first pump comprises a centrifugal pump.
- 15. (Original) The apparatus according to claim 9 wherein the second pump comprises a variable speed gear pump.
- 16. (Original) The apparatus according to claim 9 wherein the ammonia source comprises a pressurized ammonia cylinder.

17. (Original) The apparatus according to claim 9 wherein the CO₂ source comprises a pressurized CO₂ cylinder.
18. (Original) The apparatus according to claim 9 wherein the drain conducts treated wastewater effluent to a storage reservoir.
19. (Original) The apparatus according to claim 9 including a tank for receiving magnesium overflow solution directly from the dissolver tower and from which the second pump then pumps the solution to the bottom of the equalizer tower.
20. (Original) The apparatus according to claim 19 including a float valve on the tank for maintaining a proper level of magnesium in the tank.